
An Investigation of Psychological Rigidity¹

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ABSTRACT

One hundred eight social science university students were subjected to a test battery designed to detect a unitary "rigidity" factor in personality. "Rigidity" was defined for this study as sensory and motor perseveration. A battery of tests which could be administered to small groups in one hour was constructed and fourteen variables selected from this battery for factor analysis.

The fourteen variables analyzed were:

(1) Ten variables came from "p" or motor perseveration tests, five concerning the rapid writing of "R's" and five concerning the rapid writing of "B's." "p" tests involving equally habituated units ("R's" and "r's") which could be alternated, and non-habituated units ("R's" and backward "R's") which could be similarly alternated were utilized. Two ratios were formed for the habituated and non-habituated "p" conditions: the number

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of units in alternation in thirty seconds divided by the average of these units produced singly in similar intervals of time. Two more ratios were formed as above by weighting the production of units by time, to remove the inequalities of habituation in both types of ratios. A fifth variable was simply the number of backward "R's" written. Five similar measures were computed for the "B's."

(2) Two variables were obtained from the number of reversals of the Necker cube in sixty seconds under "free" instructions and instructions to "hold."

(3) One variable was the average flicker-fusion rate determined with a Strobotac.

(4) The last variable was the number of simple figures correctly perceived in a series of complex figures. This, the Gottschaldt Hidden Figures test, was administered as a forty-four multiple choice item, eight minute, test.

Variables were normalized by conversion to stanine distributions. Pearsonian correlation coefficients were calculated and the subsequent matrix factor analyzed and rotation carried out for simple structure and positive manifold. Results of this analysis were contaminated by measures derived from a single source.

To correct for this artifact, a selection of singly measured variables was refactored. These measures included: the number of fluctuations of the cube "free," and "hold," and "hold" for the Schroeder staircase, flicker fusions, number of hidden figures correctly found, the unweighted ratios for the nonequally habituated task "B" forward "B" backward written alternately, and the unweighted ratio for the equally habituated task, capital "B" small "b" alternated. Selection of these ratios was based on their low correlations with one another so that they might load with other tests of our battery.

In this second factor analysis eight variables gave rise to three factors whose identification would be tenuous at this time, due to the paucity of tests. However, at least one of these factors appears to be in line with our hypothesis, a unitary rigidity factor with loadings on both motor and sensory perseveration tasks. A second factor identified from equally habituated and nonequally habituated "p" tasks appears to define inhibition in perseveration tests. More rigid individuals may be able to control an alternation task readily as illustrated by low cube "hold" scores versus the "free" fluency condition scores. With so few tests, caution in generalization is demanded.